



"Dedicated to Public Service"

THE RADIATOR



W6RHC
IRL #8170
Echolink #322788



<http://www.gearsw6rhc.org>

P.O.Box 508 Chico, CA 95927-0508

Founded: August 13 1939

July, 2014

Coming Events

O.A.R.S. GENERAL MEETING

Second Friday, every month, at 7:00 p.m., at St. Paul's Church Parrish Hall, 1430 Pine St., Oroville

G.A.R.S. First Wednesday, each month, General Meeting, Lutheran Church Hall, Artois; 7:00

G.E.A.R.S General Meeting, third Friday each month, at Butte County Search and Rescue Building, Chico. Doors open at 6:30 p.m.

Butte A.R.E.S. MEET: fourth Friday, monthly, at Butte County Search and Rescue Building.

FCC EXAMS - GEARS VEC

.First Sunday of every even numbered month.

At the Butte County Search and Rescue Building. Written test at 2:00 p.m. For information or pre-registration call Gene WA6ZRT, (530) 345-3515.

[Anniversary Shirt Order Forms-See Page 9](#)

Club Events:

News and items of interest
GEARS Calendar...all inside.

Website: www.gearsw6rhc.org



Picture courtesy EVARC

The Prez' Says:



MARK YOUR CALENDARS FOR OUR AUGUST MEETING, FRIDAY—15TH AND THEN, OUR EVENT OF THE YEAR! AUGUST 16, OUR 75TH ANNIVERSARY CELEBRATION!

We hope all GEARS members will be present, and do extend an invitation to all other clubs whose members may wish to join us!

In the meantime:

Happy Fourth of July

Happy Birthday America

The Old Dx'ers

These three bands, 10, 15 and 20 meters are considered the big three in Dxing. These three bands are so popular with antenna designers like Cushcraft A3 and HY-Gain TH-3 and TH3j produce them as tri-band trapped beams. Almost every radio amateur at one time or another becomes interested in DX. It is the oldest activity of Amateur Radio. One doesn't have a big amp and a tower with Yagi on top of it. Simple dipoles or inverted V's will work.

10 Meters

This can be a fun band when it is open. This is the HF band most heavily affected by sunspots and the sunspot cycle and it can be erratic and exciting at the same time with lots of activity as a fun band. Minimum power and simple antennas can bring you lots of contacts when the sunspot cycle is rising towards the peak.

Extra, Advanced, General, Novice/Tech. CW: 28.000 - Total Length: 15' 10" Per Leg: 7' 11"

Extra, Advanced, General, Novice, Tech Phone: 28.300 - Total Length: 15' 8" Per Leg: 7' 10"

Novice, Tech: 28.000 to 28.500 limited to 200 Watts.

15 Meters

A lot like 20 meters but a bit more flakey. More influenced by the sunspot cycle much less night time activity than 20 meters but at the peak of the sunspot cycle, 15 can provide much greater distances. On the down side, at the bottom of the cycle, 15 meters may not open for days.

Extra CW: 21.000 - Total Length: 21' 2" Per Leg: 10' 7"

Advanced, General CW: 21.025 - Total Length: 21' 1" Per Leg: 10' 6"

Novice & Tech. CW: 21.025 - Total Length: 21' 1" Per Leg: 10' 6" (Limited to 200 CW only)

Extra Phone: 21.200 - Total Length: 20' 11" Per Leg: 10' 5"

Advanced Phone: 21.225 - Total Length: 20' 11" Per Leg: 10' 5"

General Phone: 21.275 - Total Length: 20' 10" Per Leg: 10' 5" (continued on page 6)

(The Old DX'ers, continued from Page 5)

20 Meters

Considered to be the workhorse of DX of the trio, is undoubtedly the 20 Meter band. It offers excellent propagation to all parts of the world throughout the sunspot cycle and is virtually clean of interferences from other services. This can be a very exciting band with some of the best DX found on any band. Around the world daytime communications are generally possible and when the sunspot cycle is peaking.

Extra CW: 14.000 - Total Length: 31' 9" Per Leg: 15' 10"

Advanced & General CW: 14.025 - Total Length: 31' 8" Per Leg: 15' 10"

Extra Phone: 14.150 - Total Length: 31' 5" Per Leg: 15' 8"

Advanced Phone: 14.175 - Total Length: 31' 4" Per Leg: 15' 8"

General Phone: 14.225 - Total Length: 31' 3" Per Leg: 15' 7"

Many hams think they can't use 20 meters because of all the contests. I'll admit, there are contests on most of our bands at various times of the year. Most hams think they can't compete with the dreaded "California Kilowatt" and the megazoid beams that dominate most contests. QST ran a story many years ago about a ham back east that got his DXCC using a inverted V and not using an amplifier.

So it is possible.

There are some great operating events that *are not contests* you can operate. State OSO Parties, Special Events Stations, and even Field Day (operating as a 1D as home station) are excellent ways to hone your operating skills and work on your (WAS) Award. I urge all those new to ham radio to try 20 meters. It's really not that scary to work 20 Meters.

In August we'll look at The Newbie's.

Stephen, W6AKF



73 OR 73's?**Research by Harry, W6HFM**

"73" means "best regards". So technically, "73's" or "73s" means "best regards" - some sticklers get worked up about that kind of grammar.

"88" means "love (or hugs) and kisses". Making any of these numbers plural (73s, 88s, etc.) is incorrect since they are already plural.

The traditional expression "73" goes right back to the beginning of the landline telegraph days. It is found in some of the earliest editions of the numerical codes, each with a different definition, but each with the same idea in mind--it indicated that the end, or signature, was coming up.

But there are no data to prove that any of these were used. The first authentic use of 73 is in the publication *The National Telegraph Review and Operators' Guide*, first published in April 1857. At that time, 73 meant "My love to you!"

Succeeding issues of this publication continued to use this definition of the term. Curiously enough, some of the other numerals then used have the same definition now that they had then, but within a short time, the use of 73 began to change.

In the National Telegraph Convention, the numeral was changed from the Valentine-type sentiment to a vague sign of fraternalism. Here, 73 was a greeting, a friendly "word" between operators and it was so used on all wires.

In 1859, the Western Union Company set up the standard "92Code". A list of numerals from one to 92 was compiled to indicate a series of prepared phrases for use by the operators on the wires. Here, in the 92 Code, 73 changes from a fraternal sign to a very flowery "accept my compliments", which was in keeping with the florid language of that era.

in keeping with the florid language of that era.

Over the years from 1859 to 1900, the many manuals of telegraphy show variations of this meaning.

Dodge's *The Telegraph Instructor* shows it merely as "compliments." *The Twentieth Century Manual of Railway and Commercial Telegraphy* defines it two ways, one listing as "my compliments to you;" but in the glossary of abbreviations it is merely "compliments."

Theodore A. Edison's *Telegraphy Self-Taught* shows a return to "accept my compliments." By 1908, however, a later edition of the Dodge Manual gives us today's definition of "best regards" with a backward look at the older meaning in another part of the work where it also lists it as "compliments."

"Best regards" has remained ever since as the "put-it-down-in-black-and-white" meaning of 73 but it has acquired overtones of much warmer meaning.

Today, amateurs use it more in the manner that James Reid had intended that it be used --a "friendly word between operators."

Published in the EDCARC June, 2014, Circuit newsletter. Thank you EDCARC.

Tube of the Month

GS-35B (Γ[⊖] 35[⊕]B)

The cost of new tubes available for amateur radio applications has gone through the roof. The 8877 even when a commercial pull, will run about \$300. A new one is the house payment. When the Soviet Union fell apart, different tubes began appearing for sale. The Eastern Europeans were quick to establish marketing for these tubes. The cost was relatively low and new commercially made amplifiers for hams were produced. The favorite is the GS-35B. It is large, heavy (6 lbs), powerful, rugged and cheap. The tube was intended for UHF applications up to 1000 MHz and its specifications reflect that use. As a ham amplifier tube, the ratings can be pushed. The published dissipation of a GS-35B is 1500 watts, but 2500 watts is considered appropriate. The conservative maximum anode voltage of 3000 volts can easily be pushed to 4000 volts and although it is common to push them to 4300 volts, explosions have been common at the higher voltages. The large copper anode radiator may be removed and replaced by a water jacket.

In operation, the GS-35B will put out 1500 watts on 6 meters with less than 100 watts drive. Sockets are available, but the cost is twice the cost of the tube itself. It's easier to just cut a hole in the chassis and bolt it down on its grid ring.

<http://home.comcast.net/~n6jv/gs35b.html>

Visit the museum at N6JV.com

Norm N6JV



MINUTES OF GENERAL MEETING for June 20 2014

PROGRAM: none

ATTENDANCE: Treasurer not present

VEC: None

TREASURER:

The Treasurer report: Expenses \$22.50 . Ending Balance on Hand \$3032.27.
The report was approved.

MINUTES: Approved the minutes from April meeting.

OLD BUSINESS:

Tee Shirts: Order forms are available or contact Anna by email or phone to make your request known. Size, with \$9 or without \$8 pockets and number.

Anniversary Dinner is to be on the 16th of Aug at 6:30 pm at Hometown Buffet . Current price is \$11 per head.

Field Day: This year it will be held at Tom Riders place. A port-a-potty has been ordered for \$96. The club generator will be available. Scott will be on call at Media Way if you wish to join him. The club info is on the ARRL website. Setup will begin on Friday the 27th after 12pm. Field will be from 11:00AM Saturday to 11:00 AM Sunday. Recommended logging program N3FJP.

Report on repeater site cleanup. There were several people that helped in cleaning debris up around the repeater site that filled up a pickup. It took less than an hour to accomplish.

NEW BUISNESS:

ARES training course for terror reconnection will be available at the ARES meetings.

ADJOURNMENT: 20:45 hr.

Dale Anderson,
Secretary

Board of Directors Meeting

Date of Meeting: June 20, 2014

ATTENDANCE: Treasurer not present

OLD BUSINESS:

Stephen McDermott has requested that he be allowed to find a new website service that is located closer to home and not with an over sea tech support service. Our current service is with Google.

NEW BUSINESS:

MEMBERSHIP APPLICATIONS:

None.

ADJOURNMENT: 21:33 hr.

Dale Anderson,
Secretary

New hams are different

By Dan Romanchik, KB6NU

This is going to be a bit of a ramble, but I need to get some thoughts down about new hams, and maybe get some feedback on these ideas from both new hams and guys that have been around for a while.

Recently, I visited the All Hands Active (AHA) makerspace here in Ann Arbor. Several of the "makers" that use this space have recently gotten their ham licenses—most of them in one of my one-day Tech classes. I was down there trying to get them interested in attending Field Day, and in particular, in operating the GOTA station.

There were four of us sitting around, talking about amateur radio, the projects they were working on, Field Day, and other stuff. In the past, they had also expressed an interest in doing something with WA2HOM, our station at the Ann Arbor Hands-On Museum. While it was a great discussion, it was apparent to me that it was going to be difficult to get them out for Field.

It dawned on me that these new radio amateurs were just not interested in the "old" amateur radio. Sitting in front of shortwave radios and exchanging fake signal reports with other guys sitting in front of shortwave radios is just not their idea of a good time. I think that if you take a step back and try to look at it through their eyes, you'll see where they're coming from.

What are they interested in? Well, one guy is having a blast playing around with RTL SDR dongles. He's also trying to figure out a way to rig up wireless link to light a light at bus stops around his house when a bus is approaching. Another is working on a Hinternet-type project. I helped him out a little bit last summer setting up a wireless node at his house.

(continued on page 11)



Above photos from GARS Field Day Exercise



Caps embroidered with your name and your call sign may be ordered by contacting WA6ZRT -Gene Telephone #530 -345-3515

VEC TESTING
2:00 p.m.
August 3, 2014

AT BUTTE COUNTY
SEARCH & RESCUE
BUILDING

All Classes
Technician, General and
Extra.

Contact: WA6ZRT-
Gene Wright
530-345-3515

On Monday, June 16, 2014 2:53 PM, Jeff Nelsen <sierrariders@me.com> wrote:

Hello Lawton,

My name is Jeffrey Nelsen KE7RDT. I am avid collector of ham radio equipment. I have been buying radio estates and collections for 12 years and have been a licensed operator for 6 years.

I am writing to you today because as an important member of your radio club I am sure that from time to time you have families or widows of silent keys that come to you or other members of your club to ask what to do with the equipment of their deceased loved one. In the last 12 years I have seen many occasions where this happens and the club members will buy the main radio station components (transceiver, amplifier, antenna, tuner) and they leave all the rest behind and the widow or family doesn't know what to do with the leftovers such as books, microphones, hoards of old parts, test equipment, etc... Some of them eventually find me through my advertising campaigns and I buy up the leftovers in total. Of course not all of them see my advertisements and many of them end up paying to dump this type of equipment or they just sit on it and let it collect dust. I am hoping that you can help facilitate the relocation of this type of equipment by passing along my contact information to the widows and families of silent keys that may have this type of equipment laying around.

I pay cash for any and all ham radio equipment, even weathered items that have been exposed to the elements for many years. When I say any and all I mean any and all! I specialize in cleaning up estates of radio hoarders. I will come into a situation where the family is overwhelmed and normally needs to pay thousands to have it cleaned up and I will instead pay them thousands to allow me to clean it up. I do not cherry pick a collection, I buy the good the bad and the ugly and if requested will clean the space when done. I have purchased many collections that were stored in dilapidated barns or sheds and are covered with spiders, rat poop, an inch of dust, water damage, etc... The point being I will buy it all! Transmitters, receivers, transceivers, amplifiers, parts, tubes, test equipment, mics, books, mags, antennas, tuners, cable, connectors, it surplus, scientific instruments, etc.... Antique and modern.

I am very professional, fast, courteous, discreet if need be, and sensitive to the emotional state of the widow and/or families of the deceased. Integrity is a word I live and work by!

In addition to buying silent key estates I also buy from active hams simply wanting to downsize.

As far as my buying territory goes: In California and Nevada I buy any size collection, even single pieces and I can usually complete a deal within a week. In Oregon, Washington, and Arizona I only buy medium to large size collections and may need as much as several weeks to complete a deal. In all other states I only buy large collections and the timeframe depends on distance and size of collection.

I am also a bit of an audiophile and photographer and I buy vintage audio and photo equipment. I am however picky about audio and photo equipment and I am selective about what I buy in these categories.

I am also happy to make donations to your radio club coffers for helping me add to my collection.

Thank you for your time,
Jeffrey Nelsen KE7RDT
1699 Karock rd
Arnold, Ca. 95223

Mail: P O box 4088
Camp Connell, Ca. 95223
sierrariders@mac.com
Home: 530-725-0777
Cell: 530-307-9902
Best method of contact is house phone with
email being second best.

GEARS Radiator



Royal **Blue** shirt with
Gold print.

Shirt with
pocket.....\$9.00

Shirt without
pocket\$8.00

75 YEARS

← 9.5" →

E-Mail your order to Anna
(weedwoman1825@hotmail.com) or call
877 5939

Name _____ Phone _____

	S	M	L	XL	XXL	XXXL
Pocket						
No Pocket						

Fill in how many of each size you want. If tall sizes are available, put 'T' after the size.

The GEARS Newsletter Staff:**Editor and Publisher**.....Dorothy Post**Printing & Distribution** snail mail: Evelyn Weir**Website**...Stephen McDermott W6AKF

The Radiator is a monthly publication of the Golden Empire Amateur Radio Society (GEARS). It is the policy of the Editor to publish all material submitted by the membership provided such material is in good taste, relevant to amateur radio, of interest to GEARS members, and space is available. Please send all submissions to the Editor – Dorothy Post by the last day of the month through the following medium: E-mail: dj@posthouse.us

Club Officers: (Board of Directors)

PresidentAnna Horn –KG6ZOA

Vice President..... Scott Petersen-KE6VUS

SecretaryDale Anderson-KK6EVX

Treasurer.....Lester Mikeworth KG6KUO

Past PresidentGene Wright-WA6ZRT

Director..... Tom Rider-W6JS

Director.....Stephen McDermott W6AKF

Director.....Stephen Wolske-KF6HSS

Club Meetings**General Meeting** Third Friday 6:30 PM**Board Meeting** Third Friday 9:00 PM**GEARS Club Net****Tuesdays** 8:00 PM 146.850 MHz-PL 110.9

GARS Club Net:Monday,19:30 147.105+Mhz PL 110.0

Sacramento Valley Traffic Net**Nightly** 9:00 PM 146.850 MHz-PL 110.9**ARES Nets:****Butte** Mondays 20:00 146.850 MHz-PL 110.9**Yuba Sutter** Thursdays 19:00 146.085+MHz PL 127.3**Glenn** Thursday 19:30 147.105 MHz +PL 100.0**Other Nets:**

Sac Valley Section Net—7:00 PM 2nd Wed of the month 146.085 MHz+PL 127.3

440 Wed. Night 8:00 PM Wednesday 440.650 MHz**Golden Bear** 7:00 PM Daily 3975 kHz**Willie Net** 8:00 PM Mondays 1930 kHz**Western Public Service System (WPSS)**

Winter 5:00 – 7:30 PM 3952 kHz

Summer 6:00 – 8:30 PM 3952 kHz

ARISS (International Space Station) Uplink 144.490 MHz Downlink 145.800 MHz

Hope-1 satellite: all uplinks are in 145Mhz band:

All downlinks are in 435Mhz band

...California Traffic Net: 3906 KHz nightly @6:00 pm

For traffic listing & @6:30 p.m. for roll call.

Dan KB6NU—con't from page 8

This is perhaps one reason why there are so many more licensed radio amateurs these days, but yet there seems to be less activity on the HF bands these days. HF is just not where it's at for these new guys.

One consequence of this is that the old amateur radio clubs don't have much to offer the new guys. In fact, one of them told me that the one time that he attended the local club meeting, he got such a hostile response that he decided not to return.

I'm finding this all quite interesting. I do intend to pursue some kind of joint activities between the All Hands Active maker group and WA2HOM and see where that goes. They may not be interested in working DX on 20m, but they do seem to be interested in the IRLP node that we're in the process of installing there.

I'm not sure where this is all headed, but what I do know is that these folks have a lot of energy and creativity. If we can couple that with our knowledge and experience, then I think that we'll be a good fit for one another. It's going to take open minds all around, though.

I'm really interested in hearing from all of you about this. Have your clubs made contact with the "makers" in your area? Do any of them have ham radio licenses? Are there any interesting ham radio/maker projects going on in your area?

Sunday, August 3, 2014	2:00 p.m.	VEC—Exams	Butte Co. Search & Rescue Building 2591 Morrow Lane, Chico	Gene Wright Wa6zrt 530 345 3515
Wednesday July 2, 2014	7:00 p.m.	GARS-Glenn Glenn Amateur Radio Society General Meeting, & Amateur Radio Emergency Services	Lutheran Church Hall: 565 Main Street Artois	Joel Wilson kj6dif 530 824 6005
Friday, July 11, 2014	7:00 p.m.	OARS Oroville Amateur Radio Society General Meeting	St Paul's Church Parrish Hall 1430 Pine Street Oroville	John Hunt 530 589 4734
Friday July 18, 2014	7:00 p.m.	GEARS Golden Empire Amateur Radio Society General Meeting/Elections	Butte County Search and Rescue Building 2591 Morrow Lane Chico	Anna Horn -kg6zoa 530-877-5939

GEARS 75th Anniversary
August 2014